



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

WTH

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,932	10/10/2001	Yuuichi Hashimoto	HITA.0108	4831

38327 7590 02/18/2005

REED SMITH LLP
3110 FAIRVIEW PARK DRIVE, SUITE 1400
FALLS CHURCH, VA 22042

EXAMINER

NGUYEN, KIMNHUNG T

ART UNIT PAPER NUMBER

2674

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/972,932

Applicant(s)

HASHIMOTO ET AL.

Examiner

Kimmhung Nguyen

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/16/04, 12/8/04, 1/14/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This Application has been examined. The claims 1-7 are pending. The examination results are as following.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Ukai et al. (US 5,086,347).

Regarding claim 1, Ukai et al. discloses in figures 6-9, that a liquid crystal display device comprising a liquid crystal; and two substrates (11, 12) opposed to each other with the liquid crystal interposed in between; a plurality of drain signal lines (19) that cross the plurality of gate signal lines (18); pixel regions each enclosed by two gate signal lines adjacent to each other and two drain signal lines adjacent to each other; a switching element (thin film transistor TFT16) that is provided in each pixel region and driven by a scanning signal supplied from one of the two gate signal lines that define the pixel region; a pixel electrode that is provided in each pixel region and supplied via the switching element with a video signal from one of the two drain signal lines that define the pixel region (see figure 2); an insulating film (47); and a repair conductive layer (see pad conductive layer 46) formed so as to be contained in each of the

Art Unit: 2674

plurality of drain signal lines when viewed perpendicularly and to be insulated from said each of the plurality of drain signal lines with the insulating film (47) interposed in between.

Regarding claim 2, Ukai et al. discloses that the liquid crystal display device according to claim 1, wherein at least one of the plurality of drain signal lines has a disconnected portion (44) and melt-formed portions that are located on both sides of the disconnected portion and penetrate the insulating film (see fig. 6A, see laser beam are applied by welder and interconnected by molten metal, see col. 3, lines 32-41, fig. 7, col. 3, lines 66-68 and col. 4, lines 1-13).

Regarding claims 3, 7, Ukai et al. Discloses that the liquid crystal display device according to claim 2, wherein the melt-formed portions (44) of the at least one drain signal line was formed by melting corresponding portions of the at least one drain signal line by applying laser light to those portions (see col. 3, lines 66-68 and col. 4, lines 1-13).

Regarding claims 4, 6, Ukai et al. discloses in figs. 2, and 6-9, that a liquid crystal display device comprising: a liquid crystal; and two substrates opposed (11, 12) to each other with the liquid crystal interposed in between, the liquid crystal display device further comprising on a liquid-crystal-side surface of one of the two substrates; an insulating (47); a plurality of gate signal lines (18) formed at a position closer to the one substrate (12) than the insulating film (47) is; a plurality of drain signal lines that cross the plurality of gate signal lines (18) and are formed at a position closer to the liquid crystal than the insulating film (47); pixel regions each enclosed by two gate signal lines adjacent to each other and two drain signal lines adjacent to each other; a thin-film transistor that is provided in each pixel region and driven by a scanning signal supplied from one of the two gate signal lines that define the pixel region; a pixel

Art Unit: 2674

electrode that is provided in each pixel region and supplied, via the associated thin-film transistor, with a video signal from one of the two drain signal lines that define the pixel region; and a repair conductive layer (see pad conductive layer 46) formed at a position closer to the one substrate than the insulating (47) is so as to be contained in each of the plurality of drain signal lines when viewed perpendicularly and to be insulated from said each of the plurality of drain signal lines with the insulating film interposed in between.

Regarding claim 5, Ukai et al discloses in figs. 7-9, that a liquid crystal display device according to claim 4, wherein the repair conductive layer (47) is formed in the same layer and with the same material as the plurality of gate signal lines so as to be physically separated from gate signal lines adjacent to the repair conductive layer.

Response To Arguments

3. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 2674

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number is 703-308-0425. The examiner can normally be reached on MON-FRI, FROM 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (703) 308-6725. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kimnhung Nguyen
February 16, 2005



**ALEXANDER EISEN
PRIMARY EXAMINER
TECHNOLOGY CENTER 2600**